Fig. 1

Wt = Weight

NS = Nibble Stream

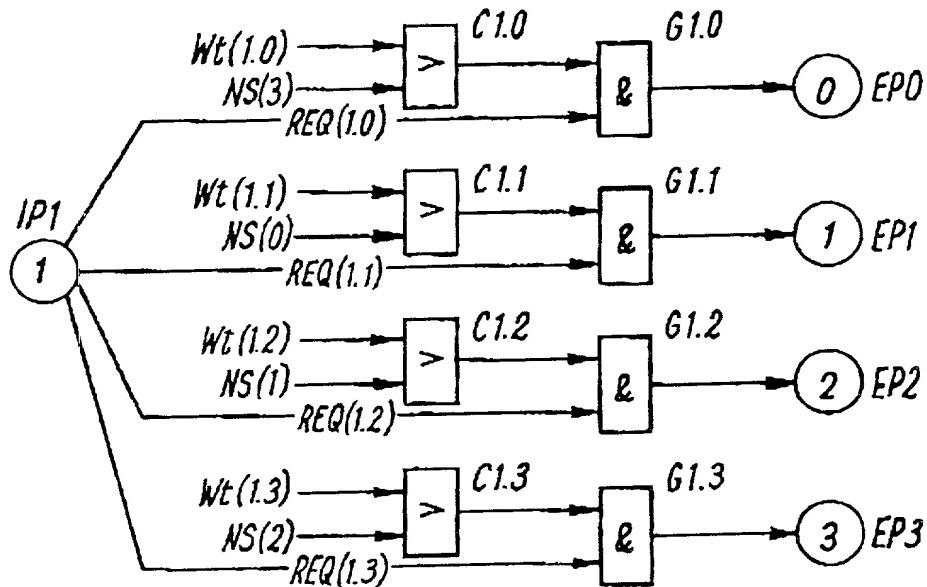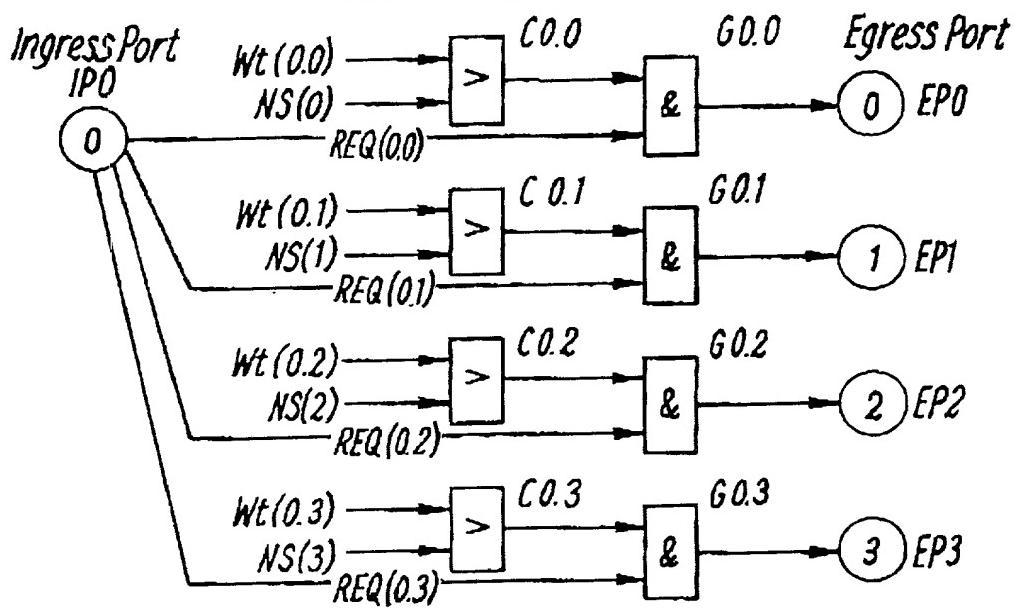Ingress Port
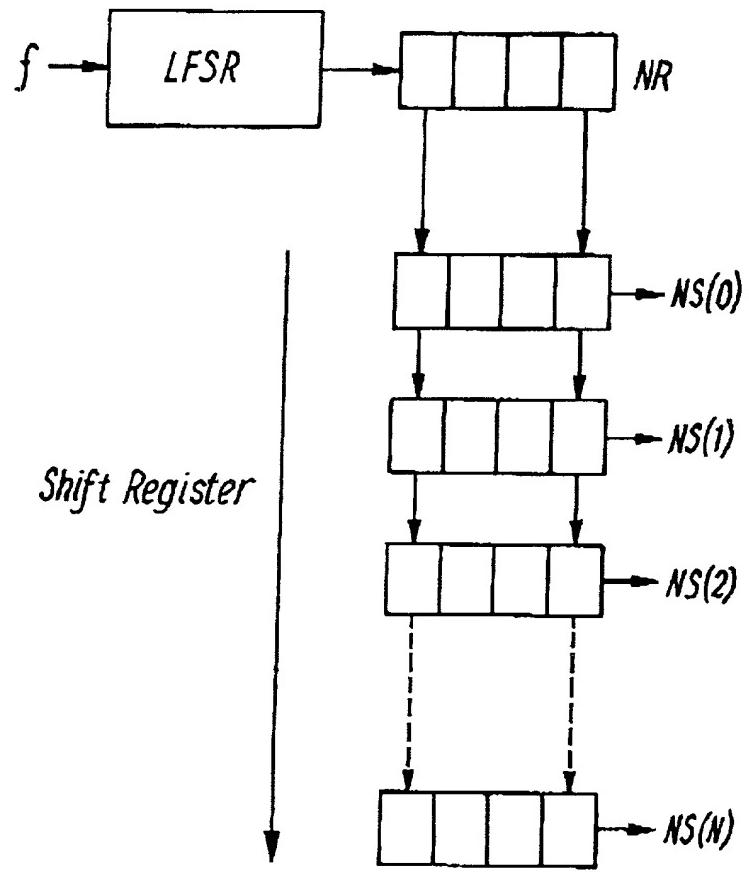IP0

Wt (0.0)
NS (0)
REQ (0.0)
$>$ C0.0
$\&$ G0.0
Egress Port
0 EP0

Wt (0.1)
NS (1)
REQ (0.1)
$>$ C 0.1
$\&$ G 0.1
1 EP1

Wt (0.2)
NS (2)
REQ (0.2)
$>$ C0.2
$\&$ G0.2
2 EP2

Wt (0.3)
NS (3)
REQ (0.3)
$>$ C0.3
$\&$ G0.3
3 EP3

Wt (1.0)
NS (3)
REQ (1.0)
$>$ C1.0
$\&$ G1.0
0 EP0

Wt (1.1)
NS (0)
REQ (1.1)
$>$ C1.1
$\&$ G1.1
1 EP1

IP1

Wt (1.2)
NS (1)
REQ (1.2)
$>$ C1.2
$\&$ G1.2
2 EP2

Wt (1.3)
NS (2)
REQ (1.3)
$>$ C1.3
$\&$ G1.3
3 EP3

Fig. 2

$f \longrightarrow$ LFSR $\longrightarrow$ NR

NS(0)

NS(1)

Shift Register

NS(2)

NS(N)

FIG.3